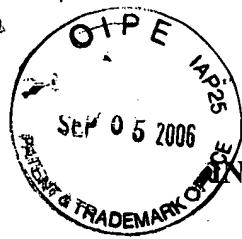


**PATENT APPLICATION**



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q92374

Donald A. TOMALIA, et al.

Appln. No.: 10/689,503

Group Art Unit: 1714

Confirmation No.: 4273

Examiner: YOON, Tae H.

Filed: October 9, 2003

Petitions Attorney: Alesia M. Brown

For: NANOCOMPOSITES OF DENDRITIC POLYMERS

**RENEWED PETITION UNDER 37 C.F.R. § 1.137(b)**

**MAIL STOP PETITION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the "Decision on Petition Under 37 C.F.R. § 1.137(b)" mailed April 27, 2006, which issued in response to Applicants' "Petition for Revival of an Application for Patent Abandoned Unintentionally Under 37 C.F.R. § 1.137(b)" filed March 10, 2006, Applicants submit herewith a copy of everything as filed on March 10, 2006, including a continuation application also filed on March 10, 2006; Petition for Revival of an Application for Patent Abandoned Unintentionally Under 37 C.F.R. § 1.137(b); Statement for Petition to Revive under 37 C.F.R. § 1.137(b); and Petition for Extension of Time Under 37 C.F.R. § 1.136. The copy of the continuation application includes copies of the Information Disclosure Statement, Preliminary Amendment, the Declaration, Drawings (16 pages), the Specification / Abstract (61 pages), and Claims (18/1).

✓ RENEWED PETITION UNDER 37 C.F.R. § 1.137(b)  
Appln. No.: 10/689,503

Docket No: Q92374

Further, Applicants also enclose a copy of the Decision on Petition, a copy of each of the Revocations of Power of Attorney and Appointment of New Attorneys By Assignee filed August 31, 2006 and a Petition for Extension of Time Under 37 C.F.R. § 1.136. The copy of each of the Powers of Attorney are submitted herewith to establish that the undersigned is authorized to sign this Renewed Petition under 37 C.F.R. § 1.137(b) and for the convenience of the Petitions Attorney. The Petition for Extension of Time Under 37 C.F.R. § 1.136 is submitted herewith to extend the due date for responding to the Decision to September 27, 2006, as permitted according to page 1 of the Decision.

As stated at page 1 of the Decision, the Petition filed March 10, 2006 has been deemed to satisfy requirements (2), (3) and (4) under 37 C.F.R. § 1.137(b), but not requirement (1) because "Petitioners have failed to submit a proper reply to the final Office action."

In view of the continuation application filed on March 10, 2006, requirement (1) under 37 C.F.R. § 1.137(b) is also satisfied, and reconsideration on the merits of the Petition filed March 10, 2006, is respectfully requested. *See*, MPEP § 711.03(c)(II)(A)(2)(b). The continuation application has received the serial number 11/384,910 and claims benefit of the present application (Application Ser. No. 10/689,503). A copy of the Request of Early Notification of Serial Number, as forwarded by the USPTO, is also enclosed herewith. Specifically, it is requested that the Petition be granted and the application be forwarded for examination.

As indicated at the bottom of page 2 of the Decision, it is believed that no additional petition fee is required. If necessary, however, the USPTO is directed and authorized to charge

RENEWED PETITION UNDER 37 C.F.R. § 1.137(b)  
Appln. No.: 10/689,503

Docket No: Q92374

all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,



Ken Sakurabayashi  
Registration No. 58,490

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
23373  
CUSTOMER NUMBER

Date: September 5, 2006

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q92374

Donald A. TOMALIA, et al.

Appln. No.: 10/689,503

Group Art Unit: 1714

Confirmation No.: 4273

Examiner: Yoon, Tae H.

Filed: October 9, 2003

For: NANOCOMPOSITES OF DENDRITIC POLYMERS

**REVOCATION OF POWER OF ATTORNEY AND  
APPOINTMENT OF NEW ATTORNEYS BY ASSIGNEE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

SUMITOMO CHEMICAL COMPANY, LIMITED, states that it is the assignee of record of the entire right, title, and interest in the above-identified application by virtue of the assignments recorded in the U.S. Patent and Trademark Office at Reel 018040, Frame 0239, and hereby revokes all prior powers of attorney and authorizations of agent given in the above-identified application and appoints all attorneys of SUGHRUE MION, PLLC who are listed under the USPTO Customer Number provided below as its attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under this USPTO Customer Number may be changed from time to time at the sole discretion of Sughrue Mion, PLLC.

SUMITOMO CHEMICAL COMPANY, LIMITED requests all correspondence for the above-identified application be addressed to the address filed under the same USPTO Customer Number.

WASHINGTON OFFICE  
23373  
CUSTOMER NUMBER

REVOCATION OF POWER OF ATTORNEY AND  
APPOINTMENT OF NEW ATTORNEYS BY ASSIGNEE  
Appln. No.: 10/689,503  
Page 2

The undersigned is authorized to act on behalf of the assignee.

Respectfully submitted,

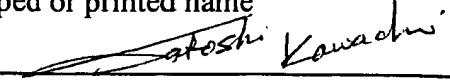
Satoshi KAWACHI

August 21, 2006

Date

Typed or printed name

Signature

  
Representative Director

Title



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: 60802D

TOMALIA, Donald A., et al.

Appln. No.: 10/689,503

Group Art Unit: 1714

Confirmation No.: 4273

Examiner: YOON, Tae H.

Filed: October 9, 2003

For: NANOCOMPOSITES OF DENDRITIC POLYMERS

**PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136**

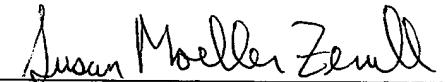
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 1.136, Applicant hereby petitions for an extension of time of three months, extending the time for responding to the Office Action of June 3, 2005 to December 3, 2005.

A check for the statutory fee of \$1020.00 is attached.

Respectfully submitted,

  
\_\_\_\_\_  
Susan Moeller Zerull  
Registration No. 38,367  
Phone: (989) 636-8858

P.O. Box 1967  
Midland, Michigan 48641-1967

Date:

MAR 10 2006



UNITED STATES PATENT AND TRADEMARK OFFICE



COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
P.O. BOX 1480  
ALEXANDRIA, VA 22313-1480  
[www.uspto.gov](http://www.uspto.gov)

THE DOW CHEMICAL COMPANY  
INTELLECTUAL PROPERTY SECTION  
P. O. BOX 1967  
MIDLAND, MI 48641-1967

COPY MAILED

APR 27 2006

OFFICE OF PETITIONS

In re Application of :  
Tomalia, et al. : DECISION ON PETITION  
Application No. 10/689,503 :  
Filed: October 9, 2003 :  
For: 60208D :

This is a decision on the petition under 37 CFR 1.137(b), filed March 21, 2006, to revive the above-identified application.

The petition is DISMISSED.

Any request for reconsideration of this decision must be submitted within TWO (2) MONTHS from mail date of this decision. Extensions of time under 37 CFR 1.136(a) are permitted. The reconsideration request should include a cover letter entitled "Renewed Petition under 37 CFR 1.137(b)." This is not a final agency decision.

This application became abandoned September 4, 2005 for failure to timely reply to the final Office action mailed June 3, 2005. The final Office action month set a shortened statutory period of time for reply. No extensions of time in accordance with 37 CFR 1.136(a) were timely requested. Notice of Abandonment was mailed February 7, 2006.

A grantable petition pursuant to 37 C.F.R. § 1.137(b) must be accompanied by: (1) the required reply to the outstanding Office action or notice, unless previously filed; (2) the petition fee as set forth in 37 C.F.R. § 1.17(m); (3) a statement that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 C.F.R. § 1.137(b) was unintentional; and (4) any terminal disclaimer (and fee set forth in 37 C.F.R. § 1.20(d)) required pursuant to 37 C.F.R. § 1.137(c).

The instant petition lacks requirement (1) set forth above. Petitioners have failed to submit a proper reply to the final Office action.

Petitioners are advised that pursuant to 37 CFR 1.136, an extension of time must be filed prior to the expiration of the maximum period obtainable for reply to avoid abandonment. Therefore, no extension of time fee is due in connection with this petition. Petitioners may request a refund of the \$1,020.00 extension of time fee by writing to the Finance Office, Refund Section. A copy of this decision should accompany any request for refund.

Any renewed petition must include a proper reply to the outstanding Office action.

Further correspondence with respect to this matter should be addressed as follows:

By mail: **Mail Stop Petition**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

By facsimile: (571) 273-8300

By hand delivery: U.S. Patent and Trademark Office  
Customer Window, **Mail Stop Petition**  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Telephone inquiries concerning this matter may be directed to the undersigned at (571) 272-3205.



Alesia M. Brown  
Petitions Attorney  
Office of Petitions



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: 60802D

TOMALIA, Donald A., et al.

Appln. No.: 10/689,503

Group Art Unit: 1714

Confirmation No.: 4273

Examiner: YOON, Tae H.

Filed: October 9, 2003

For: NANOCOMPOSITES OF DENDRITIC POLYMERS

**STATEMENT FOR PETITION TO REVIVE UNDER 37 C.F.R. § 1.137(b) AND  
PAYMENT OF FEE UNDER 37 C.F.R. § 1.17(m)**

**MAIL STOP AMENDMENT**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicants hereby petition for revival of the above-identified application under 37 C.F.R. § 1.137(b) on the grounds that the application was unintentionally abandoned for failure to file a timely reply to the PTO Communication dated June 3, 2005. The undersigned states that the abandonment was unintentional, and also states that the delay in prosecution was unintentional.

The application was abandoned for failure to timely respond to the Office Action dated June 3, 2005.

Applicants respectfully submit that it was Applicants' intent to timely respond to the Office Action.

Further, Applicants submit herewith a PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136, extending the due date for responding to the Office Action to December 3, 2005.

Tomalia, et al.  
Application No. 10/689,503  
Petition to Revive

60802D

Applicants respectfully submit that they have acted diligently to revive the application since discovering that no response had been filed with the Action dated June 3, 2005.

Therefore, Applicants did not delay filing the Petition to Revive under 37 C.F.R. § 1.137(b) at least because a PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136 is submitted herewith, and they have acted diligently since discovering that no response had been filed in response to the Office Action dated June 3, 2005.

Submitted herewith in support of the Petition are the following documents:

1. Office Action dated June 3, 2005.
2. PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136 and the check for the statutory fee of \$1020.00.
3. REPLY pursuant to MPEP § 711.03(c)(II)(A)(2)(b), including a continuation application of 10/689,503.

Respectfully submitted,

  
\_\_\_\_\_  
Susan Moeller Zerull  
Registration No. 38,367  
Phone: (989) 636-8858

P.O. Box 1967  
Midland, Michigan 48641-1967

Date:

MAR 10 2006

Docket No. 60802D

**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT  
ABANDONED UNINTENTIONALLY UNDER 37 C.F.R. § 1.137(b)**

First named inventor: TOMALIA, Donald A.

Application Number: 10/689,503

Filed: October 9, 2003

Title: NANOCOMPOSITES OF DENDRITIC POLYMERS

Group Art Unit: 1714

Examiner: Tae H. YOON

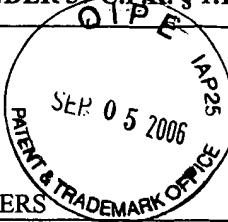
Attention: Office of Petitions

**MAIL STOP PETITION**

Commissioner for Patents

P.O. Box 1450, Alexandria, VA 22313-1450

FAX: (703) 872-9306



The above-identified application became abandoned for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the Office notice or action plus any extensions of time actually obtained.

**APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION**

NOTE: A grantable petition requires the following items:

1. Petition fee
 

Small entity - fee \$ \_\_\_\_\_ (37 C.F.R. § 1.17(m)). Applicant claims small entity status. See 37 C.F.R. § 1.27.

Other than small entity - fee \$1500.00 (37 C.F.R. § 1.17(m)).
2. Reply and/or fee
  - A. The reply and/or fee to the above-noted Office action in the form of  
A Continuation Application:
 

has been filed previously on \_\_\_\_\_.

is enclosed herewith.
  - B. The issue fee of \$ \_\_\_\_\_.
 

has been paid previously on \_\_\_\_\_.

is enclosed herewith.
3. Terminal disclaimer with disclaimer fee
 

Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.

A terminal disclaimer (and disclaimer fee (37 C.F.R. § 1.20(d)) of \$ \_\_\_\_\_ for a small entity or \$ \_\_\_\_\_ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).
4. STATEMENT: [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 C.F.R. § 1.137(b) was unintentional (MPEP § 711.03(c), subsections (III)(C) and (D))].
 

The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 C.F.R. § 1.137(b) was unintentional.

See Attached Statement.

March 10, 2006

Date

Signature

(989) 636-8858

Telephone

Susan Moeller Zerull

38,367

Typed or printed name

Reg. No.

Enclosures:  Fee(s) Payment  
 Reply (continuation application)  
 Terminal Disclaimer  
 Additional sheets containing statements establishing unintentional delay



UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	RECEIVED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,503	10/09/2003	Donald A. Tomalia	60208D	4273

109 7590 06/03/2005  
THE DOW CHEMICAL COMPANY  
INTELLECTUAL PROPERTY SECTION  
P. O. BOX 1967  
MIDLAND, MI 48641-1967

EXAMINER	
YOON, TAE H	
ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/689,503	TOMALIA ET AL
	Examiner Tae H. Yoon	Art Unit 1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 21 April 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,4,5,8-12,15 and 18 is/are rejected.
- 7) Claim(s) 2, 3, 6, 7, 13, 14, 16 and 17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

The priority data claimed by applicant are acknowledged, and thus the prior art having a filing date later than September 5, 2005 have been withdrawn.

Applicant's statement that "The Dow Corning Corporation" and "The Dow Chemical Company" are distinct and separate entity from each other has a merit and thus double patenting rejection is also withdrawn.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is new matter rejection. The examiner could not find support for claim 18 at col. 8, lines 32-35 contrary to applicant's statement (The specification does not contain columns, but pages).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5 and 8-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tomalia et al (US 5,338,532).

Rejection is maintained for reason of record and following response.

Dendrimers complexed with a metal inherently meet the recited solubility since the same dendrimers and metals are used by Tomalia et al and the invention. There are more than 30 metals are taught by Tomalia et al at col. 8, and thus choosing said metals would be an anticipation.

Claims 1, 8-12 and 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Newkome et al (US 5,422,379).

Rejection is maintained for reason of record and following response.

Newkome et al do not have to teach the benefit that substantially insoluble metal compounds should be complexed with dendritic polymer that are soluble in the solvent as long as Newkome et al teach the instant dendrimers complexed with a metal since it is an inherent property.

Claims 1, 8-12 and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 0 684 044 A2.

EP teaches the instant metal-containing compound complexed with a dendrimer at page 4, lines 3 and 35-37 and page 5, lines 26-29. The use of fluorescent compounds is taught at page 5, lines 17-18 and page 11, line 15 wherein Na salt is seen. Said metal-containing compound complexed with a dendrimer would meet the recited solubility inherently given a particular solvent which is not required in the claim.

Claims 2, 3, 6, 7, 13, 14, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1714

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tae H Yoon  
Primary Examiner  
Art Unit 1714

THY/May 31, 2005